

JUN 15 1993

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of:

Amendment of Section 2.106 of
the Commission's Rules to
Allocate Spectrum for
Wind Profiler Radar Systems

)
)
)
) ET Docket No. 93-59
) RM-8092
)

To: The Commission

COMMENTS OF KSHE(FM)

Emmis FM Broadcasting Corporation of St. Louis, Inc., licensee of FM broadcast station KSHE, Crestwood, Missouri ("KSHE"), hereby submits its comments in the above-captioned proceeding. As discussed more fully below, KSHE urges that any facilities authorized as a result of the instant proceeding be required to protect auxiliary broadcast stations which operate in an adjacent band.

The Commission proposes in this proceeding to allocate spectrum for so-called "wind profiler radar systems," with an authorized bandwidth of 2 MHz centered on 449 MHz. As the Commission is aware, remote pickup broadcast stations ("RPU's") are authorized to operate in the adjacent 450-451 MHz band. One such facility is licensed to KSHE, which operates an RPU base station on 450.700 and an RPU mobile system on 455.7000. These facilities are used extensively by KSHE for remote broadcasts; for example, some 26 remotes were broadcast during May of this

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year. The area covered by the system is approximately 50 kilometers in radius.^{1/}

While the proposed rule governing wind-profilers requires protection of military facilities and pertinent fixed amateur repeaters, no protection requirements are included for RPU's. The Commission suggests that wind profiler interference with RPU's may be minimal since it is anticipated that most wind profilers will be located in rural areas. It is important to note, however, that in many cases RPU's licensed to stations in major markets are used in surrounding rural areas, as well. For example, though KSHE is located in the St. Louis market, the area in which its RPU is used encompasses a significant portion of rural areas in Missouri and Illinois. Further, while the NTIA study relied upon by the Commission suggests that interference can be remedied by increased frequency separation, that will not be an option in most major markets (including St. Louis) as no unoccupied RPU frequencies are available. Further, "swapping" of frequencies will not solve the problem since many RPU operators use the two frequencies in a two-way duplex mode or in a repeater mode.

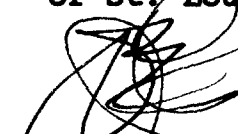
In light of the foregoing concerns, KSHE urges that wind profilers be subject to separation requirements vis-a-vis RPU's to protect RPU base/mobile operations from new interference.

^{1/} See the attached Exhibit E, Engineering Statement of Frederick D. Veihmeyer, which is attached hereto and made a part hereof.

Based on an estimated range of operation for RPU's of 50 km, and the results of the NTIA study cited by the Commission,^{2/} a separation requirement of 55 km should be adopted. Further, any applicant for a wind profiler should be required to accept full responsibility to take any necessary steps to eliminate any objectionable interference to any RPU in operation in the 450-455 MHz band.

Respectfully submitted,

Emmis FM Broadcasting Corporation
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^{2/} The NTIA study calls for a distance separation of 5 km to preclude wind profiler interference to RPU ground operations.

**EXHIBIT E
ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS
NOTICE OF PROPOSED RULE MAKING
AND NOTICE OF INQUIRY
DOCKET NO. 93-59 RM-8092**

This statement was prepared on behalf of Emmis FM Broadcasting Corporation of St. Louis (Emmis), licensee of FM broadcast station KSHE, assigned to Crestwood, Missouri in the St. Louis, Missouri market. It supplies technical information in support of comments in response to a Notice of Proposed Rule Making (NPRM) and Notice of Inquiry (NOI) in Docket 93-59 in which the Commission has proposed to allocate the frequency 449mHz for the establishment of Wind Profiler Radar Systems in the United States.

In addition to the operation of FM broadcast station KSHE,
Emmis is licensed to operate a Remote Pickup (RPU) Base Station

[REDACTED]

receive no protection from military mobile radiolocation stations, and Wind Profiler stations will provide protection to military mobile radiolocation stations that are engaged in critical national defense operations. In addition, Wind Profiler stations will be required to provide the maximum reasonable advance notice to all existing fixed amateur repeaters listed in the latest ARRL Repeater Directory that operate between 448-450MHz within 50km of the proposed Wind Profiler site.

Wind Profiler operations are not required by the NPRM to provide any protection to RPU operations in the 450MHz band. We assume the lack of concern for the RPU operations is based on the EMC (electromagnetic compatibility) analysis between Type A Wind Profilers and Remote Pickup Broadcast Stations that was conducted by NTIA in 1991 and is referenced in the NPRM. That study does recognize the potential for interference between Type A Wind Profilers and RPU operations as the results indicate that at least a 5km separation is necessary to avoid interference between Type A Wind Profilers operating on 449MHz and RPU ground base/mobile stations operating in the 450MHz frequency range. A 15 km separation is suggested for airborne RPU operations. This has apparently been ignored in the NPRM since there are no conditions attached to the proposed rule changes that apply to RPU operations in the 450-455 MHz frequency range.

The EMC study conducted by NTIA treats the situation rather loosely by stating that in most cases the distance separations required to preclude interference will be satisfied since the location of RPU operations are usually near major cities and Wind

Profilers are expected to operate in remote areas and if interactions do occur. the effect can be reduced by increased

possible since all available frequencies in the area are in use.

We urge the Commission on behalf of Emmis to expand the conditions proposed for the authorization of Wind Profilers to